

Forecasting: A Very Important Management Tool

Learning Objectives

1. To understand the fundamentals of business forecasting.
2. To understand the different uses of forecasts.
3. To understand the different types and time periods of forecasts.
4. To be able to prepare revenue forecasts.
5. To be able to prepare wage forecasts and wage schedules.

Chapter Outline

Forecasting Fundamentals

Definition

Last Year, Budgets, and Forecasts

Types and Uses of Forecasts

Forecast Relationships with Last Year and the Budget

Weekly, Monthly, Quarterly, and Long-Term Forecasts

Revenue, Wage, and Operating Expense Forecasts

Revenue Forecasting

The Importance of Room Revenue Forecasts

Volume: The Key to Forecasting

Wage Forecasting and Scheduling

Wage Forecasting Fundamentals

Labor Standards, Forecasting, and Ratios

Summary

Hospitality Manager Takeaways

Key Terms

Review Questions

Problems

Forecasts are used to assist managers in the short-term operations of their businesses. More than any other financial document, forecasts are the key management tool used to plan the details of the daily operations for the next week. Like the operating budget, forecasts look to the future and assist management in the detailed planning of operations for the next week or month. They involve the shortest time period (daily and weekly) and are the last financial document prepared in advance of actual daily operations. For example, weekly revenue forecasts are used to develop weekly wage schedules as a business prepares for the next week of operations.

The major inputs to a forecast are, first, the historical daily averages provided by Yield Management or other demand tracking programs; second, the established budget; and third, recent events that affect the current operating environment of the business. Yield Management looks to the past and provides detailed information on daily room revenue actual results. The operating budget is the formal annual financial plan for a business and is prepared once a year. It is generally approved by December for the next year and does not change. *Forecasts are used to update the budget.* Recent events and trends in the marketplace need to be considered. The forecast is the management and financial tool that adjusts the budget to reflect these changes. It is then used to plan the details of each day's operations. Forecasts can both increase or decrease budget numbers based on historical information, recent market information, and current trends.

Forecasting takes the original budget, current market conditions, and trends, and combines them with ratios and formulas to calculate revenues or labor hours that help plan daily operations in detail for the next week. Forecasts for the next month or accounting period will be more general in nature. Ratios identify the relationships between the two components of revenues (rate and volume), the two components of wages (rate and labor hours), and the important components of other operating expenses. *Ratios and formulas are used to calculate appropriate expense levels in relation to different revenue levels.*

This chapter discusses revenue and wage forecasting—how they are prepared and how they are used. The chapter builds on the information presented in the revenue management chapter.

Forecasting Fundamentals

Definition

Forecasts are the financial documents that update the operating budget. Whereas the operating budget is a permanent financial plan for a year, the forecast is flexible and provides a way to make changes to the budget to reflect current trends and economic/market conditions. Budgets are generally prepared in the fourth quarter of the current year for the next year. The budget for the first quarter is current, being only a couple of months old. However, the budgets for the third and fourth quarters are more than eight months old and many changes may have occurred in the marketplace that would affect the budget and the operations of a business. Forecasts are therefore valuable management tools used to update the budget so that it reflects current business levels and conditions.

Forecasting is not an exact science, and forecasts are not expected to balance or tie into other financial numbers. Forecasting involves using current information and combining this information with established ratios and formulas to estimate or project future business levels and operations. These ratios are based on existing relationships between revenues and expenses. These ratios can be applied aggressively or conservatively depending on the current management strategy.

Last Year, Budgets, and Forecasts

There is a logical progression for the preparation of financial documents used as management tools in operating a business. Two aspects are involved. The first is historical in nature, and the second is forward looking and looks to the future.

All financial documents used in the planning of business operations start with last year's actual financial performance. This is the historical aspect of financial planning. These numbers are facts and are the results of actual business operations for previous months or years. They become the foundation for preparing the operating and capital expenditure budgets for the next year. If last year's financial results are good, a business will try to continue the strategies and plans that produced those successful financial results. If last year's financial results are not good, then a business will identify changes and improvements that will produce the intended financial results. In both situations, the annual budget will lay out the details for the next year's operations including the expected financial results. It is the first and most formal financial document that plans for the future.

Once the annual operating budget is prepared, the next step is to update the budget by preparing forecasts that reflect any changes in the current market or economic conditions and the current trends in volume and revenues. Forecasts plan for the future, are short term in nature, and are intended to be flexible. They are the last planning document and are prepared by using the latest and most current actual market trends and infor-

mation. The weekly revenue forecast and the weekly wage schedule are used to plan the specifics of daily operations for the next week. When the week is completed, actual financial results are compared to the forecast, the budget, and last year's actual results. Major variations are analyzed and financial critiques are prepared to explain the causes and discuss solutions.

In review, the progression of financial documents used in planning business operations begins with last year's actual results that are used to prepare the annual operating budget. The budget is then updated during the year by preparing forecasts, which update the budget and provide management with the most current information to plan the next week's daily operations.

Types and Uses of Forecasts

Forecasting Relationships with Last Year and the Budget

As we have discussed throughout the book, the main uses of numbers and financial reports are to measure financial performance and provide a management tool to use in operating a business. The Profit and Loss (P&L) Statement is the main financial report used to measure financial performance. The Balance Sheet and Statement of Cash Flows also provide useful financial information for measuring financial performance. Forecasting mainly involves financial activity that is included in the P&L. Therefore, the P&L will be the focus of forecasting in this chapter. One exception is the importance to owners and managers of forecasting the required cash flow to maintain daily operations. Cash flow forecasting is generally performed by the accounting office.

The forecasting relationship with last year's actual results and the budget for the current year can be illustrated with the following time line:

1. Last year's actual results will be shown by each week.
2. Management will determine what are realistic improvements or achievable growth objectives for next year.
3. Management and accounting will prepare the formal operating budget, a detailed financial plan by day, week, month, and year outlining the financial goals for the next year.
4. The final operating budget will be approved for the next year containing specific monthly or accounting period financial plans including dollar amounts, percentages, and statistics. This budget is approved and distributed to all departments and will be used for the entire year.
5. Before the beginning of a month or accounting period, the Accounting Office will provide a weekly breakout of the budget for each department.

6. Each department will then review the budget for the next week. If there are no meaningful changes, the department will use the weekly budget as its weekly forecast and will plan the next week—day by day—according to the budget numbers.
7. If there are meaningful changes—either increases and decreases—the department managers will update the budget by making changes that reflect more accurately the current business environment. The changes that update the budget become the weekly forecast.

This time line demonstrates the process that takes actual financial performance (last year) and projects it into the future with a formal annual financial operating plan (the budget). The last step is to review the budget, make any changes or updates (the forecast), and use this information to plan the details for the next week's operations. A forecast column is rarely included in the monthly P&L. Forecasts are, however, included on internal management reports that are generally reviewed daily and weekly. This includes reviewing actual revenues and labor costs and comparing them to the forecast, the budget, and last year. Any changes or differences are explained in variation reports called critiques.

The fact that weekly forecasts are not generally included in the monthly or accounting period P&L does not mean they are not important. It means that they are used primarily as an internal management tool to plan, operate, and analyze the daily and weekly operations. In fact, operations managers spend more time with the weekly financial information than with the P&L. This is because they use the forecasts daily in their operations, critique the variations daily and weekly, and make any necessary changes that will improve performance. Effectively using the weekly forecasts and other internal management reports generally leads to better financial performance on the monthly or period P&L Statements.

Weekly, Monthly, Quarterly, and Long-Term Forecasts

The weekly forecast provides the plans and details of operations for each shift and day of the week. Daily revenue reports and daily labor productivity reports are distributed the following day. These are compared to the weekly forecast and provide operations management with the detailed results of the previous day and week to date operating results. This includes efforts to maximize revenues and efforts to minimize expenses day by day. The shift or line managers have the direct responsibility to run their departments according to the most recent forecasts. They, with their employees, make the numbers happen. Therefore they spend a lot of time reviewing, analyzing, changing, and forecasting their operations.

An essential part of the weekly forecast is the critique that analyzes last week's results. Companies have weekly forms that are useful for capturing the actual, forecast, budget, and last year's information. Recent technology developments provide a vast amount of detailed information almost instantaneously for managers to use. The strongest operations

managers in any business will possess both operating skills and financial knowledge so they can make the best use of the daily and weekly information. Weekly reports are primarily internal management reports. They provide information that measures financial performance, but their main use is as a management tool.

Monthly forecasts or accounting period reports are used equally as a management tool and to measure financial performance. These are formal reports that are distributed inside and outside the company to interested stakeholders. They provide the actual financial results of operations and compare them to the budget and to last year. Rarely is the forecast included on a formal P&L Statement. Critiques are also prepared for the formal P&L, and operations managers and accounting managers use the weekly critiques to explain the operations for the month. Operations managers are expected to prepare these critiques and review them with their direct manager or, in the hospitality industry, with their Executive Committee Member. Then the critiques are presented to and discussed with the General Manager. The final step usually involves providing this information to the regional or corporate office and to the appropriate owners.

Quarterly forecasts are primarily used to plan and project the financial performance for the next one or two quarters. Senior management as well as owners are interested to see and review what level of business can be expected in the near future. Whereas operations managers, along with the accounting department, can prepare these longer-term forecasts, they will not spend as much time on quarterly forecasts as they will on daily and weekly forecasts.

The final forecasts are the long-term forecasts, which are not as detailed as weekly and quarterly forecasts but are intended to give the general direction of expected business operations in the future. These long-term forecasts are more general in nature and will probably be prepared by the accounting office. They will include sales and profit projections and average rate, occupancy, and REVPAR projections. Companies can include different time periods in their long-term forecasts. Marriott looks at the next six accounting periods. Four Seasons includes an end-of-year forecast that combines the current year-to-date actual performance with a forecast to the end of the year so that management will always have an idea of how the end-of-year actual/forecast performance compares to last year's actual results and the current year's budget. This is important to the owner in planning for cash inflow or outflow.

Revenue, Wage, and Operating Expense Forecasts

Weekly forecasts focus on the most important financial elements of operating performance. In the hospitality industry, this means focusing primarily on revenues and labor costs.

Maximizing revenues, as we have discussed in previous chapters, involves analyzing past performance and forecasting expected levels of performance in the future. Revenue forecasts are critical to the success of any business because, in addition to forecasting

expected revenues, they are used to plan and schedule appropriate expense levels. Operations managers need to plan changes in operating expenses to handle the forecasted business levels. If a business does not forecast revenues for the next week or month, it is managing out of the rearview mirror and can get caught in some difficult situations by not seeing and adjusting to changes in the market and its business levels.

The key component of revenue forecasting is volume. Specifically, this is rooms sold for room revenues, customers for restaurant revenues, and labor hours for wage schedules. How many customers are projected to stay at the hotel or eat in the restaurant? Operations managers need to schedule appropriate labor costs and order appropriate materials and supplies to properly service the expected rooms sold or customer counts. This involves volume levels and not average rates. For example, if a hotel is forecasting \$50,000 more in revenue for the week and it is all the result of higher average rates, the hotel will not have any more guests in the hotel than the budget specifies. No changes need to be made to wages or operating expenses. However, if the additional \$50,000 is all the result of selling more rooms, then operations managers will need to schedule more employees and purchase more supplies and materials to provide expected products and services to their additional guests.

Controlling labor costs is the next most important responsibility of operations managers in all departments. In the hospitality industry, total hotel wage costs are generally 30% to 35% of sales and also produce another 10% to 15% in benefit costs. Because most of the labor costs are in hourly wages, which are a **variable expense**, managers are expected to schedule more or less wages based on the forecasted volume levels. Managers must control their hourly wages to maintain productivities and profit margins. This means sending employees home early on slow days as well as calling employees in on busier days in response to short-term changes in business volumes. It also means changing work schedules for the next few days if business has slowed down or picked up since the most recent weekly forecast was made.

Wage costs are all about hourly wages. Changing labor hours to reflect business levels is essential for managing and minimizing wage and benefit expenses. This also includes controlling overtime, which is a very expensive use of labor. Management costs are generally fixed and therefore are not subject to changes in business levels like hourly wages are.

The last expense to control according to business levels is operating costs. This primarily includes managing the food costs in the restaurant and banquet departments. These are the largest expenses in the food and beverage departments and are also subject to the changing business levels. It is important to manage food inventories because a high percentage of food is subject to time and perishability. Other operating expenses—such as cleaning supplies, guest supplies, china, glass, silver, and linen—cannot be controlled as quickly as wage and food costs. However, they are not perishable and can be used over

many months and even over many years. To control these expenses, managers must pay close attention to purchasing and receiving, invoicing, physical inventories, and interdepartmental transfers. They will primarily use the monthly or accounting period budget to control these expenses.



**Clubhouse Gallery Golf Club
Tucson, Arizona**

The Gallery Golf Club opened the North Course in 1998 and was the first private club to open in Tucson in over 30 years. Nestled against the foothills of the Tortolita Mountains, it offers spectacular views to go along with spectacular golf. It got its name from over 100 gallery quality works of art in the Gallery's dining room and lounge. In 2003, the Gallery opened the South Course. Because it is a private golf club, the clubhouse includes member locker rooms in addition to the golf pro shop and food and beverage operations. Memberships also offer a significant source of revenues. Members generally own a home at the Gallery but memberships are also sold to prospective Gallery home buyers.

How was the Gallery's forecasting of revenues affected by the addition of the second golf course? Would you prepare one daily revenue forecast or one for each golf course? What is the impact the second golf course might have on memberships? Would you maximize golf course revenues by focusing on higher greens fees (rate) or higher rounds of play (volume)?



Photo: Bill Lesch

**10th Hole Gallery South
Gallery Golf Club**

Revenue Forecasting

The Importance of Room Revenue Forecasts

Room revenue forecasting is the starting point for maximizing all hotel revenues and minimizing all hotel expenses. These are the two most important financial goals for any operations manager. Identifying the causes of increases or decreases in actual business levels, understanding financial ratios and formulas used in revenue forecasting, and preparing accurate and useful forecasts are essential to the success of any department or business.

Room revenue forecasts are also used to prepare restaurant and banquet revenue forecasts. To forecast revenues for the hotels restaurant, the restaurant manager will consider the following details included in the room revenue forecast:

1. Total rooms sold or occupied for each day
2. Number of guests per room
3. Number of group rooms occupied

The manager will then look at the banquet weekly forecast to determine what percentage or number of guests will be attending meal functions provided by banquets. This will affect the number of guests available to dine in the restaurant.

To forecast banquet revenues, the banquet manager uses guaranteed customer counts as well as the number of group rooms in the hotel. The revenue forecast includes the actual number of rooms picked up by a group, and it tells the banquet manger if the meal function will meet the number of customers guaranteed in the contract.

Several other revenue departments will forecast their revenues based on room sales. These include the Gift Shop, Telephone, and Recreation departments, among others, which will use a formula based on room revenue forecasts. For example, these departments can use sales per occupied room to forecast their department sales. The Gift Shop will have a historical average sales per occupied room. Managers will use this amount and multiply it by the number of occupied rooms for the day or week to develop their forecasts.

Volume: The Key to Forecasting

We will emphasize one more time that all forecasting is based on **volume** or business levels. Each revenue department applies a formula based on rooms sold or hotel guests to calculate and forecast its department revenues. Examples of formulas used include the following:

1. Rooms Occupied \times Average Sales per Room = Department Sales
2. Rooms Occupied \times Average Guests per Room = Total Hotel Guests
3. Total Hotel Guests \times Average Check per Guest = Department Sales

$$4. \text{ Total Hotel Guests} - \text{Banquet Guests} \times \text{Average Check per Guest} = \text{Department Sales}$$

Any of these formulas can be used to calculate and forecast the revenue for a specific department. Notice that these formulas require an expected volume level stated as total rooms occupied or total guests. This volume number is then applied to an average room rate, average guest check, average expenditure per room, or other formula to calculate a department sales forecast. The next section provides more details and examples of how rooms occupied and number of guests are used to prepare wage schedules and other cost control plans and schedules.

Because of the nature of **fixed costs** they are generally not changed from the budgeted amounts when included in forecasts. Variable costs are changed based on **ratios** that identify the relationship between different expenses and the volume of revenues or sales.

The formula for room revenue is

$$\text{Rate} \times \text{Volume}$$

Room revenue forecasting applies this formula with current actual information to determine the next week's forecast. Steps in the process of preparing weekly room revenue forecasts begin with forecasting volume levels and then applying an average rate to calculate or forecast total room revenues.

1. Historical averages are used to provide a starting point for forecasting. This can be average rooms sold for each day of the week for room revenues and average customers per day and meal period for restaurants.
2. Current trends and market conditions are then applied to these averages. If a hotel has been busier than usual for the last several weeks, the revenue forecast prepared will probably be higher than the historical averages. If a hotel has been slower during the previous weeks, the historical numbers will be adjusted downward when weekly forecasts are prepared. In each of these examples, the operations managers will add or delete 5, 10, 20, or any other number of rooms from the historical averages to reflect current demand and market conditions.
3. Often forecasts are prepared for each market segment and then added together to get the total room revenue forecast. For example, transient rooms sold are forecasted based on information from a yield management program, whereas group rooms sold are forecasted based on group room blocks and the actual pickup of rooms held in the room block.
4. The last step is determining an average rate to apply to each room sold or average check to apply to each customer. Historical room rates and average checks are the starting point, and then adjustments are made based on any room rate increases or

menu price increases. This process can also be done by market segment or meal period. The more detailed the forecasting of rooms sold and average rates, the more accurate the forecast should be. Forecasting total rooms sold for the week and using one average rate for the week will give a very general forecast. Forecasting volumes and average rates by market segment and meal period will result in more detail and accuracy.

Wage Forecasting and Scheduling

Wage Forecasting Fundamentals

Managing and controlling wage costs are the biggest responsibility of hospitality managers in maintaining productivities and profit margins. The reasons for this are as follows:

1. Wages are the largest expense of each revenue department in hospitality operations. The only exception is retail, where cost of goods sold is generally higher. Total wage costs in a full-service hotel will be in the 30% to 35% range.
2. Hourly wages are variable, and therefore hourly wage schedules can be prepared and adjusted based on the volume levels of current revenue forecasts.
3. Each wage dollar produces an associated benefit cost, generally in the 25% to 40% range. Controlling wage expenses also results in controlling benefit expenses.

Managers in revenue departments spend a great deal of time reviewing revenue forecasts and then preparing wage schedules that appropriately reflect volume levels. This is the primary way that labor productivities and profit margins are maintained.

Labor Standards, Forecasting, and Ratios

Many ratios and forecasts can be used in preparing wage schedules that maintain expected productivities. The primary methods used in a hotel relate to the rooms department and food and beverage departments.

The Rooms Department

$$\begin{aligned}
 \text{Total Labor Hours per Occupied Room} &= \\
 & \text{Total Department Labor Hours} \div \text{Total Occupied Rooms} \\
 \text{Wage Cost per Occupied Room} &= \\
 & \text{Total Department Wage Cost in Dollars} \div \text{Total Occupied Rooms} \\
 \text{Wage Cost Percentage} &= \\
 & \text{Total Department Wage Cost in Dollars} \div \text{Total Department Revenues}
 \end{aligned}$$

Housekeeper labor hours based on rooms cleaned per eight-hour shift, or numbers of housekeeper room credits per shift.

Front desk clerk labor hours based on check-ins per eight-hour shift.

Front desk cashier labor hours based on check-outs per eight-hour shift.

Restaurant Departments

$$\begin{aligned} & \textit{Total Labor Hours per Cover/Customer Count} = \\ & \textit{Total Department Labor Hours} \div \textit{Total Covers/Customer Counts} \\ & \textit{Wage Cost per Cover/Customer Count} = \\ & \textit{Total Department Wage Cost in Dollars} \div \textit{Total Department Revenue} \\ & \textit{Wage Cost Percentage} = \\ & \textit{Total Department Wage Cost in Dollars} \div \textit{Total Department Revenue} \end{aligned}$$

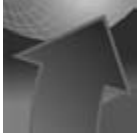
Server labor hours based on number of tables per shift or number of covers/customers per shift.

These ratios are applied to the forecasted volumes that produce weekly revenue forecasts for both the rooms department and all food and beverage departments.

Summary

Forecasting is an important management tool for any business. It is the process of reviewing past performance and combining it with present trends and market conditions to project business volume for the next week or month. It is important for a business to be aware of the economic conditions in its market and the actions and performance of its primary competitors.

Forecasting includes projecting future revenues and scheduling future expenses to maintain productivities and profit margins. This all starts with volumes as expressed in rooms sold or customer counts. The amount of activity in a hotel or restaurant will require an established level of wages and other operating expenses to deliver the expected products and services. As business volumes increase, additional wages and operating expenditures will be necessary to properly deliver these expected levels of service. Likewise, when business levels decrease, these wage and operating expenses will also need to be reduced to maintain productivities and avoid unproductive waste in wage and operating costs. It is important for operations managers in any business to possess adequate forecasting skills that will enable them to adjust operating expenses with expected levels of business.



Hospitality Manager Takeaways

1. Weekly forecasting of revenues and wages for the next week is a critical factor in maximizing revenues, controlling expenses, and maintaining productivities.
2. Volume—rooms sold and customer counts—is the starting point of all forecasts.
3. There is a direct relationship between revenue volume and variable expenses.
4. Forecasting is primarily a management tool that has a major impact on maximizing financial performance.



Key Terms

Fixed Expenses—Expenses that are relatively constant and that do not change with different business levels and volumes. Secretaries in sales and accounting clerks are examples of fixed-wage positions.

Forecast—A type of report that updates the budget.

Monthly Forecast—A forecast of revenues for the next month including average rates and volumes for specific market segments, departments, or meal periods.

Quarterly Forecast—A forecast that projects revenues over a longer time period and is completed by adding together the forecasts for each month of the quarter.

Rate—The part of the revenue equation that provides the dollar price that guests or customers are willing to pay to secure a room or meal. Typically, average room rates and average guest checks are used to calculate total room or restaurant revenues. It also provides the hourly rate of pay for wage forecasting and scheduling.

Ratios—Formulas that are used to calculate appropriate expense levels in relation to different revenue levels.

Variable Expenses—Expenses that fluctuate or change directly with the change in business levels and volumes. Housekeepers, bellmen, and servers are examples of variable wage positions.

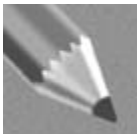
Volume—The part of the revenue equation that provides the quantity of products or services consumed by the guest. Typically, rooms sold or occupied and customer counts are used to calculate total room or restaurant revenues. Volume is also used to determine the labor hours required for wage forecasting and scheduling.

Weekly Forecast—The forecast for the upcoming week that includes revenues and expenses, with a focus on wage forecasts, and provides the details by day and shift for providing the actual products and services expected by guests.



Review Questions

1. Name two ways that weekly forecasts are different from monthly or quarterly forecasts.
2. Why is volume so important in forecasting?
3. Define fixed and variable wage expenses and give two examples of wage positions in each category.
4. Name the seven steps in the forecasting time line.
5. What are the formulas for room revenue forecasts and restaurant forecasts?
6. What is the formula for forecasting the hourly wage expense?
7. List three important wage ratios.
8. Why are weekly forecasts so important to managing a business's profitability?



Problems

Revenue Forecasting Problem Sets

This section involves the revenue forecasting process for the rooms, restaurant, and room service departments. These forecasts are prepared weekly and are a key management tool for department managers to use in scheduling and controlling operating expenses. The process that will be used is to present the forecast from the first week to explain and demonstrate how a forecast is prepared and how it is used. Information will then be given for the second week that will include changes from the first week that increase the volume and revenue or decrease the volume and revenue. Students will prepare the second week forecast for practice. It will be reviewed and discussed in class. Students can work individually or in groups when preparing the forecast for the second week.

The third week will be presented again as an example with changes to the first week forecast, either a busier or a slower week. Students will prepare the third week forecast as a problem set and turn it in. It will be graded and is worth 25 points. Students can do this assignment individually or as a group. The fourth week forecast will be a quiz where

students are expected to prepare the fourth week forecast by themselves. This process will be followed for room forecasts, restaurant forecasts, and room service forecasts.

Room Revenue Forecasts

Developing the rooms department revenue forecast involves two steps. The first is to forecast rooms sold, and the second is to forecast room revenue. The rooms sold forecast involves several variables as demonstrated in the following matrix:

	<u>Transient Rooms</u>	<u>Group Rooms</u>	<u>Total Rooms</u>
Confirmed reservations			
Definite groups			
Pickup reservations or tentative groups			
TOTAL ROOMS			

The forecast for each of these segments is prepared in different ways. The transient confirmed or guaranteed room reservations are generated from the Yield Management or Demand Tracking system of the hotel for each day. The Hotel Reservation Manager then projects or forecasts the number of additional reservations expected between the current date and the day of arrival, including same-day walk-ins, and adds that to the confirmed reservations to forecast the total rooms sold for the day. The group rooms forecast is generated by the group booking report, which provides the number of definite group rooms booked per day. The Director of Sales then determines the number of tentative or prospective group rooms that are in negotiations that have a high probability of becoming definites. Adding total tentatives or to-be-booked to total definites will result in the forecasted group rooms sold for the week.

When the total rooms sold forecast for the week is completed, average room rates are projected for each segment for each day. Total room revenues are then calculated by multiplying rooms sold times the average room rate for each day and each segment and then adding them together to get the total rooms revenue forecast by day for the next week. The weekly forecast will include rooms sold, occupancy percentage, average room rate, and total room revenue for each day of the week and for the total week. The hotel selling strategy team then reviews and approves the weekly forecast.

The steps to prepare a rooms forecast are as follows:

1. Identify confirmed transient reservations and definite group reservations for each day (DOA) from the yield management report and group rooms report.
2. Project the number of expected additional transient reservations and tentative group reservations for each day.

3. Calculate the daily average room rate for transient and for group rooms sold.
4. Calculate the daily room revenue for transient and group rooms by multiplying the daily number of rooms sold by the average room rate for each segment.
5. Add the daily rooms sold for each day of the week to get the total rooms sold for the week.
6. Add the total daily revenue for each day of the week to get the total room revenue for the week.
7. Calculate the average weekly room rate by dividing total room revenue for the week by total rooms sold for the week.
8. Calculate the daily and weekly occupancy percentage by dividing daily rooms sold by total hotel rooms.
9. Double-check the amounts by adding the daily rooms sold or revenue across and comparing it by adding the transient and group market segment down to get the same total rooms sold for the week and the total room revenue for the week.

Apply this process to the following weekly problem sets to calculate total weekly room revenues. Following are worksheets and weekly forecasts for students to use in preparing weekly room revenue forecasts. Week 1 will be provided as an example, and then weeks 2 and 3 will involve changes that require students to calculate and prepare the weekly room forecast for each week. A final quiz will involve preparing the weekly room forecast for the fourth week.

Rooms Sold Forecasting Worksheet

_____ Week _____ Period

	Friday/ Offset	Saturday	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Total
MARKET SEGMENT									
TRANSIENT ROOMS									
Reservations Booked									
Reservations Pickup									
Total Transient Reservations									
GROUP ROOMS									
Definite Groups									
Tentative/Prospective Groups									
Total Group Reservations									
TOTAL ROOM RESERVATIONS									
OCCUPANCY PERCENTAGE									
Arrivals/Check-ins									
Departures/Check-outs									

Room Revenue Forecasting Worksheet
 _____ Week _____ Period

	Friday/	Saturday	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Total
MARKET SEGMENT									
TRANSIENT REVENUE									
Rooms Sold									
Average Rate									
Total Transient Revenue									
GROUP REVENUE									
Rooms Sold									
Average Rate									
Total Group Revenue									
TOTAL REVENUE									
Total Rooms Sold									
Occupancy Percentage									
Average Rate									
Total Room Revenue									

Rooms Sold Forecasting Worksheet—600 Rooms

1 Week 1 Period

MARKET SEGMENT	Offset							Total	
	Friday/ Friday/	Saturday	Sunday	Monday	Tuesday	Wednesday	Thursday		Friday
TRANSIENT ROOMS									
Reservations Booked	150	120	300	400	400	350	180	1,900	
Reservations Pickup	<u>10</u>	<u>10</u>	<u>30</u>	<u>50</u>	<u>40</u>	<u>40</u>	<u>20</u>	<u>200</u>	
Total Transient Reservations	160	130	330	450	440	390	200	2,100	
GROUP ROOMS									
Definite Groups	20	20	80	120	120	100	40	500	
Tentative/Prospective Groups	<u>10</u>	<u>0</u>	<u>10</u>	<u>30</u>	<u>20</u>	<u>20</u>	<u>10</u>	<u>100</u>	
Total Group Reservations	30	20	90	150	140	120	50	600	
TOTAL ROOMS SOLD	190	150	420	600	580	510	250	2,700	
OCCUPANCY PERCENTAGE	31.7%	25.0%	70.0%	100%	96.7%	85.0%	41.7%	64.3%	
Arrivals/Check-ins	50	100	320	280	120	130	90	1,090	
Departures/Check-outs	160	140	50	100	140	200	350	1,140	

Room Revenue Forecasting Worksheet
 ___ 1 ___ Week ___ 1 ___ Period

MARKET SEGMENT	Saturday	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Total
TRANSIENT REVENUE								
Rooms Sold	160	130	330	450	440	390	200	2,100
Average Rate	\$ 110	\$ 110	\$ 130	\$ 145	\$ 145	\$ 140	\$ 110	\$ 133.55
Total Transient Revenue	\$17,600	\$14,300	\$42,900	\$65,250	\$63,800	\$54,600	\$22,000	\$280,450
GROUP REVENUE								
Rooms Sold	30	20	90	150	140	120	50	600
Average Rate	\$ 100	\$ 100	\$ 120	\$ 125	\$ 125	\$ 125	\$ 100	\$ 120.08
Total Group Revenue	\$ 3,000	\$ 2,000	\$10,800	\$18,750	\$17,500	\$15,000	\$ 5,000	\$ 72,050
TOTAL REVENUE								
Total Rooms Sold	190	150	420	600	580	510	250	2,700
Occupancy Percentage	31.7%	25.0%	70.0%	100%	96.7%	85.0%	41.7%	64.3%
Average Rate	\$108.42	\$108.67	\$127.86	\$140.00	\$140.17	\$136.47	\$108.00	\$ 130.56
Total Room Revenue	\$20,600	\$16,300	\$53,700	\$84,000	\$81,300	\$69,600	\$27,000	\$352,500

Problem Set 1
Week 2 of Period 1
A Busier Week

For the second week, the hotel is forecasting a busier week and more rooms sold. To prepare the second week rooms sold forecast, use the following steps:

1. Begin with the first week's rooms sold forecast. All changes will be made to those numbers.
2. Increase the second week's rooms sold forecast as follows: Weekdays are Monday through Thursday, weekends are Friday through Sunday:
 - a. Increase transient weekday and weekend room reservations by 15 per day.
 - b. Increase the transient reservations pickup per day by 10 on weekdays and 5 on weekends.
 - c. Total the transient rooms sold by day and add up for the weekly total. Check by adding across and down.
 - d. Total the group rooms sold by day by adding each group's number of rooms to get daily group rooms forecasted.
 - e. Add the daily group room totals to get the weekly group room totals.
 - f. Add the daily transient and group rooms to get the total daily rooms sold forecast.
 - g. Add the seven days of total rooms sold to get the total weekly rooms sold.
3. Calculate the daily and weekly occupancy percentage by dividing total rooms sold by total hotel rooms (600).
4. Disregard the arrival and departure lines. They will be used to forecast and schedule wages.
5. Use the following second week forecast form for your calculations.

Check your forecast with the correct forecast that follows the blank forecast page. Be sure and prepare your forecast before checking it to the correct forecast.

To forecast the total room revenue for the second week, use the same daily room rates for transient and group as in the first week, and make the calculations on the rooms revenue forecasting worksheet. Take the daily rooms sold from the rooms sold forecasting worksheet, and enter them on the room revenue forecasting worksheet. You will find this worksheet after the rooms sold forecasting worksheet.

Rooms Sold Forecasting Worksheet
 _____ Week _____ Period
 2 1
 A Busier Week

MARKET SEGMENT	Offset	Friday/ Friday/	Saturday	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Total
TRANSIENT ROOMS										
Reservations Booked										
+15 per day weekdays (w/d) and weekends (w/e)										
Reservations Pickup										
+10 per day w/d and +5 per day w/e										
Total Transient Reservations										
GROUP ROOM										
Definite Groups #1			20	30	30	30	30			110
#2			30	30	30	30				90
#3							40	40	20	140
Tentative/Prospective Groups #1								50	50	100
Total Group Reservations										
TOTAL ROOMS SOLD										
OCCUPANCY PERCENTAGE										
Arrivals/Check-ins										
Departures/Check-outs										

Rooms Sold Forecasting Worksheet

Answers

2 Week 1 Period
A Busier Week

MARKET SEGMENT	Offset Friday/	Friday	Saturday	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Total
		1	2	3	4	5	6	7	8	9
TRANSIENT ROOMS										
Reservations Booked		165	135	315	415	415	415	365	195	2,005
+15 per day w/d and w/e										
Reservations Pickup		<u>15</u>	<u>15</u>	<u>40</u>	<u>60</u>	<u>50</u>	<u>50</u>	<u>50</u>	<u>25</u>	<u>255</u>
+10 per day w/d, +5 per day w/e										
Total Transient Reservations		180	150	355	475	465	415	220	220	2,260
GROUP ROOMS										
Definite Groups #1			20	30	30	30	30			110
#2			30	30	30	30				90
#3					40	40	40	40	20	140
Tentative/Prospective Groups #1						<u>50</u>	<u>50</u>	<u>50</u>		<u>100</u>
Total Group Reservations		-0-	50	60	100	120	90	90	20	440
TOTAL ROOMS SOLD		180	200	415	575	585	505	240	240	2,700
OCCUPANCY PERCENTAGE		30.0%	33.3%	69.2%	95.8%	97.5%	84.2%	40.0%	40.0%	64.3%
Arrivals/Check-ins										
Departures/Check-outs										

Room Revenue Forecasting Worksheet
 Same Average Daily Rates as Week 1
 ___ Week ___ 1 ___ Period

MARKET SEGMENT	Friday/	Saturday	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Total
TRANSIENT REVENUE									
Rooms Sold									
Average Rate									
Total Transient Revenue									
GROUP REVENUE									
Room Sold									
Average Rate									
Total Group Revenue									
TOTAL REVENUE									
Total Rooms Sold									
Occupancy Percentage									
Average Rate									
Total Room Revenue									

Room Revenue Forecasting Worksheet

Answers

2 Week 1 Period

MARKET SEGMENT	Friday/	Saturday	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Total
TRANSIENT REVENUE									
Rooms Sold		180	150	355	475	465	415	220	2,260
Average Rate	\$ 110	\$ 110	\$ 110	\$ 130	\$ 145	\$ 145	\$ 140	\$ 110	\$ 133.21
Total Transient Revenue	\$19,800	\$16,500	\$46,150	\$68,875	\$67,425	\$58,100	\$24,200	\$301,050	
GROUP REVENUE									
Rooms Sold	-0-	-	50	60	100	120	90	20	440
Average Rate	\$ -0-	\$ 100	\$ 5,000	\$ 7,200	\$ 12,500	\$ 15,000	\$ 11,250	\$ 2,000	\$ 52,950
Total Group Revenue	\$19,800	\$21,500	\$53,350	\$81,375	\$82,425	\$69,350	\$26,200	\$354,000	
TOTAL REVENUE									
Total Rooms Sold	180	200	415	575	585	505	240	2,700	
Occupancy Percentage	30.0%	33.3%	69.2%	95.8%	97.5%	84.2%	40.0%	64.3%	
Average Rate	\$110.00	\$107.50	\$128.55	\$141.52	\$140.90	\$137.33	\$109.17	\$ 131.11	
Total Room Revenue	\$19,800	\$21,500	\$53,350	\$81,375	\$82,425	\$69,350	\$26,200	\$354,000	

Problem Set 2—25 Points
 Week 3 of Period 1
 Another Busy Week

This problem set is worth 25 points and can be done individually or in a group. Follow the same steps used in forecasting the second week. Following are the changes to be used in forecasting the third week:

1. Begin with the first week’s rooms sold forecast. All changes will be made to those numbers.
2. Increase the third week’s rooms sold forecast as follows:
 - a. Increase weekday transient room reservations 30 per day.
 - b. Increase weekday transient pickup reservations 15 per day.
 - c. Increase weekend transient room reservations 20 per day.
 - d. Increase weekend transient pickup reservations 10 per day.
3. Second week group room blocks are as follows:

		<u>Saturday</u>	<u>Sunday</u>	<u>Monday</u>	<u>Tuesday</u>	<u>Wednesday</u>	<u>Thursday</u>	<u>Friday</u>	<u>Total</u>
Definite	#1	20	40	40	40				140
group	#2		30	30	20				80
Tentative	#1				40	40	40	20	140
group	#2					<u>70</u>	<u>70</u>	<u>40</u>	<u>180</u>

4. Complete the total rooms sold forecasting worksheet.
5. Enter the Week 3 rooms sold from the rooms sold worksheet onto the Week 3 room revenue forecasting worksheet.
6. Use the same daily average rates as Week 1 for both the transient and group rooms sold.
7. Calculate the total room revenue for Week 3, and complete the Week 3 room revenue forecasting worksheet.

The 25 points will be graded on the daily and weekly totals from the room revenue forecasting worksheet. Turn both forecasting worksheets in for credit.

Rooms Sold Forecasting Worksheet
 25-Point Problem Set
 ___ 3 ___ Week ___ 1 ___ Period

	Offset	Friday/	Saturday	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Total
MARKET SEGMENT										
TRANSIENT ROOMS										
Reservations Booked										
Reservations Pickup										
Total Transient Reservations										
GROUP ROOMS										
Definite Groups										
Tentative/Prospective Groups										
Total Group Reservations										
TOTAL ROOM RESERVATIONS										
OCCUPANCY PERCENTAGE										
Arrivals/Check-ins										
Departures/Check-outs										

Room Revenue Forecasting Worksheet
 25-Point Problem Set
 ___ Week ___ 1 ___ Period

	Friday/	Saturday	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Total
MARKET SEGMENT									
TRANSIENT REVENUE									
Rooms Sold									
Average Rate									
Total Transient Revenue									
GROUP REVENUE									
Rooms Sold									
Average Rate									
Total Group Revenue									
TOTAL REVENUE									
Total Rooms Sold									
Occupancy Percentage									
Average Rate									
Total Room Revenue									

The final part of the Room Revenue Forecasting section is to prepare the fourth week forecast. This will be given as a 25-point quiz, and students are expected to do their own work on this quiz.

Restaurant and Room Service Forecasts

This section involves the revenue forecasting process for the restaurant and room service departments. The rooms sold forecast for the hotel is used by all the departments in the hotel because it is the best indicator of business activity in the hotel. We will use the same rooms sold forecasts for Period 1 that were prepared in the previous section to prepare the restaurant and room service revenue forecasts. Many of the steps in forecasting food and beverage revenues are the same as those used in forecasting room revenues.

We will follow the same format as that used for the room revenue forecasts: start with the first week forecast, prepare and discuss the second week forecast, and then prepare the third week forecast as a 25-point problem set. The fourth week forecast will be a 25-point quiz.

Notice how similar the restaurant and room service forecasting process is to the rooms forecasting process. This includes the format of the forecasting worksheets. The forecasting process includes forecasting customers and average checks to calculate restaurant and room service revenues. The weekly forecast will be prepared day by day and added up for the total weekly customers, average check, and revenues. The breakfast, lunch, and dinner meal periods will replace the transient and group market segments used in the room forecast.

Refer to the following restaurant and room service forecasting worksheets as we go over the steps to prepare each of these forecasts. We will start with the room service forecast and then move on to the restaurant forecast.

Room Service Customer Count Forecast

1. Enter the transient, group, and total rooms sold by day from the rooms sold forecast that was used in the previous rooms forecasting section.
2. Convert the rooms sold by day to hotel guest count by day by using the hotel's historical average of number of guests per room. In our forecasting examples, we will use 1.2 guests per room.
3. Identify the percentage capture rates calculated from the Room Service history for each meal period. A capture rate is the historical percentage of hotel guests that use Room Service for each meal period. In our forecasting examples, we will use capture rates of 25% for breakfast, 8% for lunch, and 15% for dinner.
4. Calculate Room Service customers by day by meal period. Round up to whole numbers.
5. Add the daily customer counts to get the weekly totals. Check by adding across the daily totals for the week and comparing them by adding down the meal period totals for the week. They should be the same.

6. Transfer Room Service customer counts to the Room Service Revenue worksheet.

Restaurant Customer Count Forecast

1. Enter the historical daily customer count average for each day for each meal period on the Restaurant forecasting worksheet. Total the week down and across.
2. Based on forecasted hotel house counts and on outside activities, enter the appropriate house count adjustment that will reflect the expected business levels for the restaurant.
3. Total the new forecasted daily customer counts for each day by adding the historical average to the house count adjustment. Total for the week and check across and down.
4. Transfer restaurant customer counts to the Restaurant Revenue worksheet.

Room Service and Restaurant Revenue Forecast

1. Double-check the customer counts for each outlet by comparing the customer counts on the customer count forecasting worksheet to the customer count forecasts entered on the revenue forecasting worksheets. They should be the same.
2. Enter daily average checks by meal period for each day. These are obtained from historical averages in the restaurant and room service.
3. Calculate the meal period revenue for each day and each meal period by multiplying customer counts by average checks.
4. Add the revenues for each day to get the total revenue for each meal period for the week.
5. Calculate the weekly average check for each meal period and the total restaurant by dividing total weekly sales by total weekly customer counts.
6. Check your weekly totals by adding daily customer counts and revenues across and comparing that result by adding down the weekly meal period totals for customers and revenues. They should be the same.
7. You will have one Restaurant and Room Service customer forecast worksheet and two separate Revenue Forecasting worksheets—one for Room Service and one for the Restaurant.

Note: Do not be concerned if your numbers are off one or two because of rounding. Focus on the formulas and the forecasting process.

Customer Count Forecasting Worksheet
 Room Service and Restaurant
 _____ Week _____ Period

Saturday Sunday Monday Tuesday Wednesday Thursday Friday Total

Total Rooms Sold

Guest Count @ 1.2 per room

Room Service Capture Rates

Breakfast @ 25%

Lunch @ 8%

Dinner @ 15%

Total Room Service Customers

Restaurant Customer Counts

Breakfast Daily Average

Breakfast Customer Adjustment

Total Breakfast Customers

Lunch Daily Average

Lunch Customer Adjustment

Total Lunch Customers

Dinner Daily Average

Dinner Customer Adjustment

Total Dinner Customers

Total Restaurant Customers

Room Service Revenue Forecasting Worksheet
 _____ Week _____ Period

Saturday Sunday Monday Tuesday Wednesday Thursday Friday Total

Breakfast

Customer Counts
 Average Check
 Revenue

Lunch

Customer Counts
 Average Check
 Revenue

Dinner

Customer Counts
 Average Check
 Revenue

Total Room Service

Customer Counts
 Average Check
 Total Revenue

Restaurant Revenue Forecasting Worksheet

_____ Week _____ Period

	Saturday	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Total
Breakfast								
Customer Counts								
Average Check								
Revenue								
Lunch								
Customer Counts								
Average Check								
Revenue								
Dinner								
Customer Counts								
Average Check								
Revenue								
Total Room Service								
Customer Counts								
Average Check								
Total Revenue								

Customer Count Forecasting Worksheet

Room Service and Restaurant
 1 Week 1 Period

	<u>Saturday</u>	<u>Sunday</u>	<u>Monday</u>	<u>Tuesday</u>	<u>Wednesday</u>	<u>Thursday</u>	<u>Friday</u>	<u>Total</u>
Total Rooms Sold	190	150	420	600	580	510	250	2,700
Guest Count @ 1.2 per room	228	180	504	720	696	612	300	3,240
Room Service Capture Rates								
Breakfast @ 25%	57	45	126	180	174	153	75	810
Lunch @ 8%	19	15	41	58	56	49	24	262
Dinner @ 15%	<u>35</u>	<u>27</u>	<u>76</u>	<u>108</u>	<u>105</u>	<u>92</u>	<u>45</u>	<u>488</u>
Total Room Service Customers	111	87	243	346	335	294	144	1,560
Restaurant Customer Counts								
Breakfast Daily Average	100	100	75	125	150	150	125	825
Breakfast Customer Adjustment								
Total Breakfast Customers								
Lunch Daily Average	40	30	30	60	80	80	50	370
Lunch Customer Adjustment								
Total Lunch Customers								
Dinner Daily Average	60	50	100	120	140	120	80	670
Dinner Customer Adjustment								
Total Dinner Customers								
Total Restaurant Customers	200	180	205	305	370	350	255	1,865

Room Service Revenue Forecasting Worksheet

1 Week 1 Period

	Saturday	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Total
Breakfast								
Customer Counts	57	45	126	180	174	153	75	810
Average Check	\$ 10	\$ 10	\$ 12	\$ 12	\$ 12	\$ 12	\$ 10	\$ 11.56
Revenue	\$ 570	\$ 450	\$1,512	\$2,160	\$2,088	\$1,836	\$ 750	\$ 9,366
Lunch								
Customer Counts	19	15	41	58	56	49	24	262
Average Check	\$ 12	\$ 12	\$ 14	\$ 15	\$ 15	\$ 15	\$ 12	\$ 14.18
Revenue	\$ 228	\$ 180	\$ 574	\$ 870	\$ 840	\$ 735	\$ 288	\$ 3,715
Dinner								
Customer Counts	35	27	76	108	105	92	45	488
Average Check	\$14	\$ 14	\$ 16	\$ 18	\$ 18	\$ 16	\$ 14	\$ 16.43
Revenue	\$ 490	\$ 378	\$1,216	\$1,944	\$1,890	\$1,472	\$ 630	\$ 8,020
Total Room Service								
Customer Counts	111	87	243	346	335	294	144	1,560
Average Check	\$11.60	\$11.59	\$13.59	\$14.38	\$14.38	\$13.75	\$11.58	\$ 13.53
Total Revenue	\$1,288	\$1,008	\$3,302	\$4,974	\$4,818	\$4,043	\$1,668	\$21,101

Restaurant Revenue Forecasting Worksheet

 1 Week 1 Period

	Saturday	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Total
Breakfast								
Customer Counts	100	100	75	125	150	150	125	825
Average Check	\$ 9	\$ 9	\$ 10	\$ 11	\$ 11	\$ 10	\$ 9	\$ 9.94
Revenue	\$ 900	\$ 900	\$ 750	\$ 1,375	\$ 1,650	\$ 1,500	\$ 1,125	\$ 8,200
Lunch								
Customer Counts	40	30	30	60	80	80	50	370
Average Check	\$ 11	\$ 11	\$ 12	\$ 13	\$ 13	\$ 13	\$ 11	\$ 12.27
Revenue	\$ 440	\$ 330	\$ 360	\$ 780	\$ 1,040	\$ 1,040	\$ 550	\$ 4,540
Dinner								
Customer Counts	60	50	100	120	140	120	80	670
Average Check	\$ 13	\$ 13	\$ 15	\$ 16	\$ 16	\$ 15	\$ 13	\$ 14.82
Revenue	\$ 780	\$ 650	\$ 1,500	\$ 1,920	\$ 2,240	\$ 1,800	\$ 1,040	\$ 9,930
Total Room Service								
Customer Counts	200	180	205	305	370	350	255	1,865
Average Check	\$10.60	\$10.44	\$12.73	\$13.36	\$13.32	\$12.40	\$10.65	\$ 12.16
Total Revenue	\$2,120	\$1,880	\$2,610	\$4,075	\$4,930	\$4,340	\$2,715	\$22,670

Customer Count Forecasting Worksheet
 Room Service and Restaurant

Practice Week
 2 Week 1 Period

	<u>Saturday</u>	<u>Sunday</u>	<u>Monday</u>	<u>Tuesday</u>	<u>Wednesday</u>	<u>Thursday</u>	<u>Friday</u>	<u>Total</u>
Total Rooms Sold	180	200	415	575	585	505	260	2,720
Guest Count @ 1.2 per room	216	240	498	690	702	606	312	3,264
Room Service Capture Rates								
Breakfast @ 25%	54	60	125	173	176	152	78	818
Lunch @ 8%	17	19	40	55	56	48	25	260
Dinner @ 15%	32	36	75	104	105	91	47	490
Total Room Service Customers	103	115	240	332	337	291	150	1,568

Restaurant Customer Counts

Breakfast Daily Average	
Breakfast Customer Adjustment +10 w/d	
Total Breakfast Customers	
Lunch Daily Average	
Lunch Customer Adjustment +5 All Days	
Total Lunch Customers	
Dinner Daily Average	
Dinner Customer Adjustment +15 All Days	
Total Dinner Customers	
Total Room Service Customers	

Room Service Revenue Forecasting Worksheet

2 Week 1 Period
Practice Week

Saturday Sunday Monday Tuesday Wednesday Thursday Friday Total

Breakfast

Customer Counts
Average Check Same
Revenue

Lunch

Customer Counts
Average Check Same
Revenue

Dinner

Customer Counts
Average Check +50 Cents All Days
Revenue

Total Room Service

Counts
Average Check
Total Revenue

Restaurant Revenue Forecasting Worksheet
 _____ 2 _____ Week _____ 1 _____ Period
 Practice Week

Saturday Sunday Monday Tuesday Wednesday Thursday Friday Total

Breakfast							
Customer Counts							
Average Check +50 Cents All Days							
Revenue							
Lunch							
Customer Counts							
Average Check Same							
Revenue							
Dinner							
Customer Counts							
Average Check Same							
Revenue							
Total Room Service							
Customer Counts							
Average Check							
Total Revenue							

Customer Count Forecasting Worksheet
Room Service and Restaurant

Practice Week Answers
2 Week 1 Period

	Saturday	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Total
Total Rooms Sold	180	200	415	575	585	505	260	2,720
Guest Count @ 1.2 per Room	216	240	498	690	702	606	312	3,264
Room Service Capture Rates								
Breakfast @ 25%	54	60	125	173	176	152	78	818
Lunch @ 8%	17	19	40	55	56	48	25	260
Dinner @ 15%	<u>32</u>	<u>36</u>	<u>75</u>	<u>104</u>	<u>105</u>	<u>91</u>	<u>47</u>	<u>490</u>
Total Room Service Customers	103	115	240	332	337	291	150	1,568
Restaurant Customer Counts								
Breakfast Daily Average	100	100	75	125	150	150	125	825
Breakfast Customer Adjustment +10 w/d			<u>10</u>	<u>10</u>	<u>10</u>	<u>10</u>		<u>40</u>
Total Breakfast Customers	100	100	85	135	160	160	125	865
Lunch Daily Average	40	30	30	60	80	80	50	370
Lunch Customer Adjustment +5 All Days	<u>5</u>	<u>5</u>	<u>5</u>	<u>5</u>	<u>5</u>	<u>5</u>	<u>5</u>	<u>35</u>
Total Lunch Customers	45	35	35	65	85	85	55	405
Dinner Daily Average	60	50	100	120	140	120	80	670
Dinner Customer Adjustment +5 All Days	15	15	15	15	15	15	15	105
Total Dinner Customers	75	65	115	135	155	135	95	775
Total Restaurant Customers	220	200	235	335	400	380	275	2,045

Room Service Revenue Forecasting Worksheet

2 Week 1 Period
Practice Week Answers

	Saturday	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Total
Breakfast								
Customer Counts	54	60	125	173	176	152	78	818
Average Check Same as First Week	\$ <u>10</u>	\$ <u>10</u>	\$ <u>12</u>	\$ <u>12</u>	\$ <u>12</u>	\$ <u>12</u>	\$ <u>10</u>	\$ <u>11.53</u>
Revenue	\$ 540	\$ 600	\$1,500	\$2,076	\$2,112	\$1,824	\$ 780	\$ 9,432
Lunch								
Customer Counts	17	19	40	55	56	48	25	260
Average Check Same as First Week	\$ <u>12</u>	\$ <u>12</u>	\$ <u>14</u>	\$ <u>15</u>	\$ <u>15</u>	\$ <u>15</u>	\$ <u>12</u>	\$ <u>14.14</u>
Revenue	\$ 204	\$ 228	\$ 560	\$ 825	\$ 840	\$ 720	\$ 300	\$ 3,677
Dinner								
Customer Counts	32	36	75	104	105	91	47	490
Average Check +50 Cents	\$ <u>14.50</u>	\$ <u>14.50</u>	\$ <u>16.50</u>	\$ <u>18.50</u>	\$ <u>18.50</u>	\$ <u>16.50</u>	\$ <u>14.50</u>	\$ 16.89
Revenue	\$ 464	\$ 522	\$1,238	\$1,924	\$1,943	\$1,502	\$ 682	\$ 8,275
Total Room Service								
Customer Counts	103	115	240	332	337	291	150	1,568
Average Check	\$11.73	\$11.74	\$13.74	\$14.53	\$14.53	\$13.90	\$11.75	\$ 13.64
Total Revenue	\$1,208	\$1,350	\$3,298	\$4,825	\$4,895	\$4,046	\$1,762	\$21,384

Restaurant Revenue Forecasting Worksheet

2 Week 1 Period

Practice Week Answers

	Saturday	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Total
Breakfast								
Customer Counts	100	100	85	135	160	160	125	865
Average Check +50 Cents	\$ <u>9.50</u>	\$ <u>9.50</u>	\$ <u>10.50</u>	\$ <u>11.50</u>	\$ <u>11.50</u>	\$ <u>10.50</u>	\$ <u>9.50</u>	\$ <u>10.47</u>
All Days								
Revenue	\$ 950	\$ 950	\$ 893	\$ 1,553	\$ 1,840	\$ 1,680	\$ 1,188	\$ 9,054
Lunch								
Customer Counts	45	35	35	65	85	85	55	405
Average Check—Same as First Week	\$ <u>11</u>	\$ <u>11</u>	\$ <u>12</u>	\$ <u>13</u>	\$ <u>13</u>	\$ <u>13</u>	\$ <u>11</u>	\$ <u>12.25</u>
Revenue	\$ 495	\$ 385	\$ 420	\$ 845	\$ 1,105	\$ 1,105	\$ 605	\$ 4,960
Dinner								
Customer Counts	75	65	115	135	155	135	95	775
Average Check—Same as First Week	\$ <u>13</u>	\$ <u>13</u>	\$ <u>15</u>	\$ <u>16</u>	\$ <u>16</u>	\$ <u>15</u>	\$ <u>13</u>	\$ <u>14.77</u>
Revenue	\$ 975	\$ 845	\$ 1,725	\$ 2,160	\$ 2,480	\$ 2,025	\$ 1,235	\$ 11,445
Total Restaurant								
Customer Counts	220	200	235	335	400	380	275	2,045
Total Revenue	\$11.00	\$10.90	\$12.93	\$13.61	\$13.56	\$12.66	\$11.01	\$ 12.45
	\$2,420	\$2,180	\$3,038	\$4,558	\$5,425	\$4,810	\$3,028	\$25,459

Customer Count Forecasting Worksheet
 Room Service and Restaurant
 Problem Set—25 Points
 3 Week 1 Period

Saturday Sunday Monday Tuesday Wednesday Thursday Friday Total

Total Rooms Sold—from Third Week

Rooms Forecast

Guest Count @ 1.2 per Room

Room Service Capture Rates

Breakfast @ 25%

Lunch @ 8%

Dinner @ 15%

Total Room Service Customers

Restaurant Customer Counts

Breakfast Daily Average

Breakfast Customer Adjustment +20 w/e

Total Breakfast Customers

Lunch Daily Average

Lunch Customer Adjustment +10 w/e

Total Lunch Customers

Dinner Daily Average

Dinner Customer Adjustment +15 w/e

Total Dinner Customers

Total Restaurant Customers

Room Service Revenue Forecasting Worksheet

3 Week 1 Period

Problem Set

Saturday Sunday Monday Tuesday Wednesday Thursday Friday Total

Breakfast

Customer Counts

Average Check Same as Week 1

Revenue

Lunch

Customer Counts

Average Check Same as Week 1

Revenue

Dinner

Customer Counts

Average Check +50 Cents

Revenue

Total Room Service

Customer Counts

Average Check

Total Revenue

Restaurant Revenue Forecasting Worksheet

___ 3 ___ Week ___ 1 ___ Period
 Problem Set

Saturday Sunday Monday Tuesday Wednesday Thursday Friday Total

Breakfast

Customer Counts
 Average Check Same as
 Week 1
 Revenue

Lunch

Customer Counts
 Average Check Same as
 Week 1
 Revenue

Dinner

Customer Counts
 Average Check Same as
 Week 1
 Revenue

Total Room Service

Customer Counts
 Average Check
 Total Revenue

Customer Count Forecasting Worksheet
 Room Service and Restaurant
 _____ Week _____ Period

Saturday Sunday Monday Tuesday Wednesday Thursday Friday Total

Total Rooms Sold

Guest Count @ 1.2 per Room

Room Service Capture Rates

Breakfast @ 25%

Lunch @ 8%

Dinner @ 15%

Total Room Service Customers

Restaurant Customer Counts

Breakfast Daily Average

Breakfast Customer Adjustment

Total Breakfast Customers

Lunch Daily Average

Lunch Customer Adjustment

Total Lunch Customers

Dinner Daily Average

Dinner Customer Adjustment

Total Dinner Customers

Total Restaurant Customers

Room Service Revenue Forecasting Worksheet

_____ Week _____ Period

Saturday Sunday Monday Tuesday Wednesday Thursday Friday Total

Breakfast

Customer Counts
Average Check
Revenue

Lunch

Customer Counts
Average Check
Revenue

Dinner

Customer Counts
Average Check
Revenue

Total Room Service

Customer Counts
Average Check
Total Revenue

Restaurant Revenue Forecasting Worksheet

_____ Week _____ Period

Saturday Sunday Monday Tuesday Wednesday Thursday Friday Total

Breakfast

Customer Counts
Average Check
Revenue

Lunch

Customer Counts
Average Check
Revenue

Dinner

Customer Counts
Average Check
Revenue

Total Room Service

Customer Counts
Average Check
Total Revenue

Wage Forecasting Problem Sets

This section involves the wage forecasting process for the Front Office and Housekeeping departments. The weekly wage forecasts are probably the most valuable tool for management in controlling expenses and ensuring that wages are scheduled in relation to the business volume expected for the week. The weekly wage schedule identifies the number of labor hours needed for the week based on changing weekly revenue forecasts.

We will use the same process to prepare weekly wage schedules as we used to prepare weekly revenue forecasts. The first week of the period will be presented, and it will show how the wage forecasts are prepared including ratios and formulas. The second week will be given as an in-class exercise. The third week will be a 25-point problem set, and the fourth week will be a 25-point quiz. We will use the weekly rooms forecasts that were prepared earlier in this section for the wage schedules.

Front desk clerks are scheduled based on the number of expected arrivals or check ins on the p.m. shift. Employees can be scheduled for full eight-hour shifts or part-time shifts of four or six hours. The weekly wage schedule will include the number of arrivals, employees necessary to check in that number of arrivals, number of labor hours needed, and the total wage cost. The steps to prepare the front desk clerk weekly wage schedule are as follows:

1. Identify the number of daily check-ins from the weekly revenue forecast.
2. Divide by the number of check-ins per shift that an employee can handle. We will use 50 check-ins per shift in our example. This will give the number of employees needed per day.
3. Multiply by eight-hour shifts to get the number of labor hours needed by day and week.
4. Multiply by the hourly rate of pay. We will use \$9 in our example.
5. Calculate for each day and add for the week to get the weekly number of employees, labor hours, and wage cost.

Front desk cashiers are scheduled based on the number of expected departures or check outs on the a.m. shift. The steps are the same as those used for scheduling front desk clerks. However, there are some differences. We will use 75 check-outs per shift because many guests use express check-out and don't have to come to the front desk to check out. We will have a higher hourly rate of pay of \$10 because cashiers have more responsibility with cash banks and are generally more experienced employees. The rest of the process is the same as that used for the front desk clerks.

Housekeepers are scheduled based on the number of rooms cleaned per shift per day. A key difference is that housekeepers clean the rooms from the previous day. Therefore, housekeeper daily schedules are based on the occupied rooms from the previous night.

We will refer to these as offset rooms. For example, on Saturday, the housekeepers will be cleaning the rooms that were occupied on Friday night.

1. Identify the number of occupied rooms from the previous night.
2. Divide by the number of rooms cleaned per day per housekeeper, 16 in our example.
3. Multiply by eight-hour shifts to get labor hours.
4. Multiply by the average hourly rate to get wage cost, \$8 per hour in our example.
5. Calculate for each day and add to get weekly number of employees, weekly labor hours, and weekly wage cost.

The whole process of wage scheduling begins with the weekly forecasted number of rooms sold by day. This identifies how busy the hotel is and what level of employee staffing will be required to take care of the hotel guests. Each department head is responsible for preparing the weekly wage schedules. The Front Office Manager prepares two wage schedules, one for the a.m. shift and one for the p.m. shift. The Director of Housekeeping prepares one schedule because housekeepers generally work a 8:00 to 4:30 shift with a half hour for lunch.

We will now prepare the weekly forecasts for the first period. Remember that front desk clerks are scheduled based on the daily guest accounts or check-in, that the front desk cashiers are scheduled based on the daily guest departures or check-outs and that housekeepers are scheduled based on the offset rooms sold or in other words, the room occupied the previous night. In all example the typical week run from Saturday thru Friday. For housekeeper the schedule is also from Saturday thru Friday, but it is based on room sold from Friday thru Thursday – the offset rooms.

Wage Forecasting Worksheet
 ___1___ Week ___1___ Period

Offset	Friday/	Saturday	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Total
Departures		160	140	50	100	140	200	350	1,140
Arrivals		50	100	320	280	120	130	90	1,090
Rooms Sold	300/	190	150	420	600	580	510	250	2,700/2,750*
Occupancy Percentage		31.7%	25.0%	70.0%	100%	96.7%	85.0%	41.7%	64.3%
Desk Clerks—Arrivals									
Number of Employees @ 50 per Shift		1.0	2.0	6.4	5.6	2.4	2.6	1.8	21.8
× Eight-Hour Shift		8.0	16.0	51.2	44.8	19.2	20.8	14.4	174.4
× Hourly Rate \$9		\$ 72	\$144	\$461	\$ 403	\$ 173	\$ 187	\$ 130	\$ 1,570
Cashiers—Departures									
Number of Employees @ 75 per Shift		2.1	1.9	0.7	1.3	1.9	2.7	4.7	15.3
× Eight-Hour Shift		16.8	15.2	5.6	10.4	15.2	21.6	37.6	122.4
× Hourly Rate \$10		\$ 168	\$152	\$ 56	\$ 104	\$ 152	\$ 216	\$ 376	\$ 1,224
Housekeepers @ 16 Rooms per Day									
Number of Employees		18.8	11.9	9.4	26.3	37.5	36.3	31.9	172.1
× Eight-Hour Shift		150.4	95.2	75.2	210.4	300	290.4	255.2	1,377
× Hourly Rate \$8		\$1,203	\$762	\$602	\$1,683	\$2,400	\$2,323	\$2,042	\$11,015

* equals offset rooms sold for Friday though Thursday
 Round employees and labor hours to one decimal, wage cost to whole dollars

Wage Forecasting Worksheet
2 Week 1 Period
 Practice Week

Category	Offset							Total	
	<u>Friday/</u>	<u>Saturday</u>	<u>Sunday</u>	<u>Monday</u>	<u>Tuesday</u>	<u>Wednesday</u>	<u>Thursday</u>		<u>Friday</u>
Departures		140	105	60	150	135	190	405	1,185
Arrivals		60	125	275	310	145	110	140	1,165
Rooms Sold	260/	180	200	415	575	585	505	240	2,700/2,720*
Occupancy Percentage		30.0%	33.3%	69.2%	95.8%	97.5%	84.2%	40.0%	64.3%

Desk Clerks—Arrivals
 Number of Employees @ 50 per Shift
 × Eight-Hour Shift
 × Hourly Rate \$9

Cashiers—Departures
 Number of Employees @ 75 per Shift
 × Eight-Hour Shift
 × Hourly Rate \$10

Housekeepers @ 16 Rooms per Day
 Number of Employees
 × Eight-Hour Shift
 × Hourly Rate \$8

* equals offset rooms sold for Friday through Thursday
 Round employees and labor hours to one decimal, wage cost to whole dollars

Wage Forecasting Worksheet
 2 Week 1 Period
 Practice Week Answers

Category	Offset							Total	
	Friday/	Saturday	Sunday	Monday	Tuesday	Wednesday	Thursday		Friday
Departures		140	105	60	150	135	190	405	1,185
Arrivals		60	125	275	310	145	110	140	1,165
Rooms Sold	260/	180	200	415	575	585	505	240	2,700/2,720*
Occupancy Percentage		30.0%	33.3%	69.2%	95.8%	97.5%	84.2%	40.0%	64.3%
Desk Clerks—Arrivals									
Number of Employees @ 50 per Shift		1.2	2.5	5.5	6.2	2.9	2.2	2.8	23.3
× Eight-Hour Shift		9.6	20.0	44.0	49.6	23.2	17.6	22.4	186.4
× Hourly Rate \$9		\$86	\$180	\$396	\$446	\$209	\$158	\$202	\$1,677
Cashiers—Departures									
Number of Employees @ 75 per Shift		1.9	1.4	0.8	2.0	1.8	2.5	5.4	15.8
× Eight-Hour Shift		15.2	11.2	6.4	16.0	14.4	20.0	43.2	126.4
× Hourly Rate \$10		\$152	\$112	\$64	\$160	\$144	\$200	\$432	\$1,264
Housekeepers @ 16 Rooms per Day									
Number of Employees		16.3	11.3	12.5	25.9	35.9	36.6	31.6	170.1
× Eight-Hour Shift		\$130	\$90	\$100	\$207	\$287	\$293	\$253	\$1,360
× Hourly Rate \$8									

* equals offset rooms sold Thursday through Friday
 Round employees and labor hours to one decimal, wage cost to whole dollars

Wage Forecasting Worksheet

3 Week 1 Period
25-Point Problem Set

Category	Offset							Total	
	<u>Friday</u>	<u>Saturday</u>	<u>Sunday</u>	<u>Monday</u>	<u>Tuesday</u>	<u>Wednesday</u>	<u>Thursday</u>		<u>Friday</u>
Departures	125	200	200	75	70	250	225	275	1,220
Arrivals	100	100	100	200	225	300	200	100	1,225
Rooms Sold	360/	335	235	360	515	565	540	365	2,915/2,910*
Occupancy Percentage	55.8%		39.2%	60.0%	85.8%	94.2%	90.0%	60.8%	69.4%

Desk Clerks—Arrivals
 Number of Employees @ 50 per Shift
 × Eight-Hour Shift
 × Hourly Rate _____

Cashiers—Departures
 Number of Employees @ 75 per Shift
 × Eight-Hour Shift
 × Hourly Rate _____

Housekeepers @ 16 Rooms per Day
 Number of Employees
 × Eight-Hour Shift
 × Hourly Rate _____

* equals offset rooms sold for Friday through Thursday
 Round employees and labor hours to one decimal, wage cost to whole dollars

Wage Forecasting Worksheet
 4 Week 1 Period
 25-Point Quiz

Category	Friday/	Saturday	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Total
Departures									
Arrivals									
Rooms Sold									
Occupancy Percentage									
Desk Clerks—Arrivals									
Number of Employees @ 50 per Shift									
× Eight-Hour Shift									
× Hourly Rate									
Cashiers—Departures									
Number of Employees @ 75 per Shift									
× Eight-Hour Shift									
× Hourly Rate									
Housekeepers @ 16 Rooms per Day									
Number of Employees									
× Eight-Hour Shift									
× Hourly Rate									